

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY**

DOE's Tribal Energy Program



Lizana K. Pierce, Project Manager

U.S. DOE, Golden Field Office

(303) 275-4727 or lizana.pierce@go.doe.gov

www.eere.energy.gov/tribalenergy



DOE's Tribal Energy Program **Organization**

Program Management through DOE Headquarters, implementation through the DOE Golden Field Office, and technical support through the DOE's Laboratories

Program Management

Thomas Sacco
DOE, Program Manager

Field Implementation

Lizana Pierce
DOE, Project Manager

Victoria DeHerrera
Navarro, Sr. Project Analyst



Technical Assistance (DOE Laboratories)

Sandra Begay-Campbell
SNL

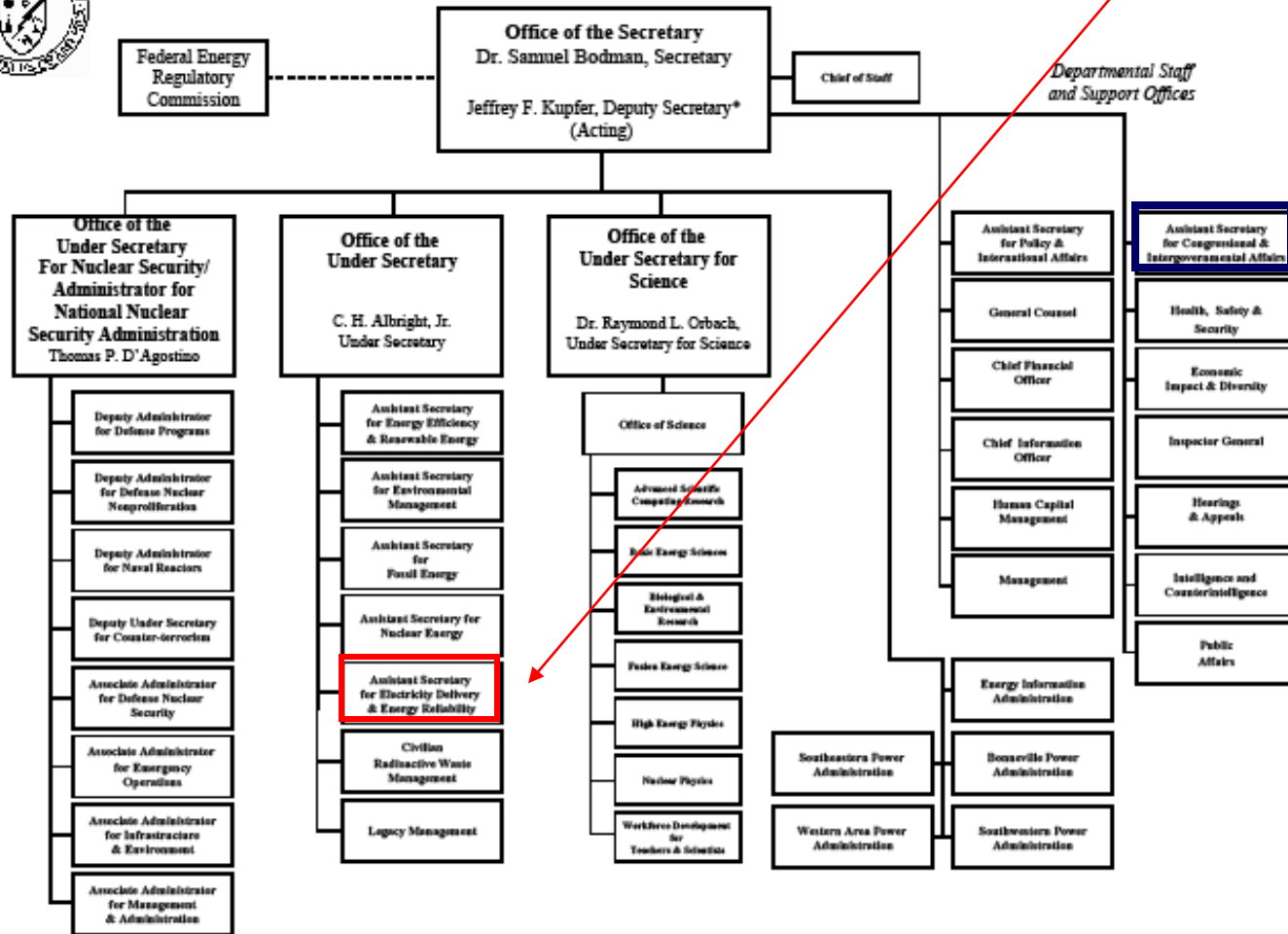
Roger Taylor
NREL



DEPARTMENT OF ENERGY

Office of Energy Efficiency
and Renewable Energy

Congressional and
Intergovernmental
Affairs



* The Deputy Secretary also serves as the Chief Operating Officer

10 Mar 08

EPAct 2005 Directs the Establishment of an “Office of Indian Energy Policy and Programs”



DOE's Tribal Energy Program

Promote tribal energy sufficiency, economic development and employment on tribal lands through the use of renewable energy and energy efficiency technologies



Authority

Title V of the Energy Policy Act (EPAc 2005)



DOE's Tribal Energy Program



Mission

Offering financial and technical assistance to Tribes through government-to-government partnerships that:

- 1) Allow Tribal leaders to make informed decisions;***
- 2) Bring renewable energy and energy efficiency options to Indian Country;***
- 3) Enhance human capacity through education and training;***
- 4) Improve local Tribal economies and the environment; and***
- 5) Make a difference in the quality of life of Native Americans.***



DOE's Tribal Energy Program Funding

	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008
Requested	\$2.1	\$8.31	\$6.0	\$5.5	\$4.0	\$4.0	\$3.0
Enacted	\$3.0	\$6.0	\$5.0	\$5.5	\$4.0	\$4.0	\$6.0
Earmarks	\$0	\$1.0*	\$3.3**	\$2.0^	\$1.0*	\$0	\$0.8^^
Discretionary	\$3.0	\$5.0	\$1.7	\$3.5	\$3.0	\$4.0	\$6.0
Awards	14	24	7	20	11	15	2

* Council of Energy Resource Tribes (CERT)

** CERT, ICOUP, and Pyramid Lake Paiute

^ CERT and Pyramid Lake Paiute

^^ Navajo Hopi Land Commission (NHLCO) and CERT

(Amounts in Millions)



FY2009 Program Funding*

FY2009

DOE FY2009 Request **\$1.0**

House Marks **\$6.0**

Senate Marks **\$6.0**

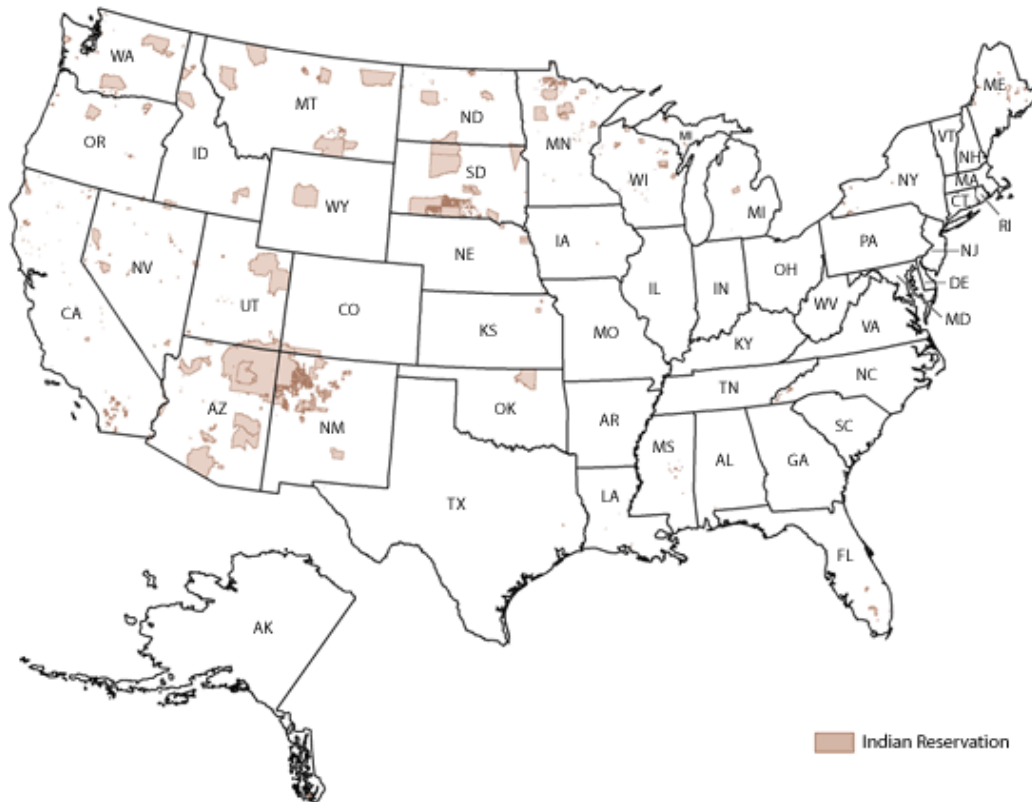
“Funding reduction maintains core tribal energy assessment and technical assistance contributions. In FY 2008, program restructuring was initiated to develop finance mechanisms that streamline project development and increase access to private developers, thereby reducing the need for direct financial assistance to Tribes. Redirected funds enable EERE to accelerate critical national research priorities that benefit the Nation.”

* Amounts in Millions



DOE's Tribal Energy Program

“Indian land comprises 5% of the land area of the United States, but contains an estimated 10% of all energy resources in the United States”

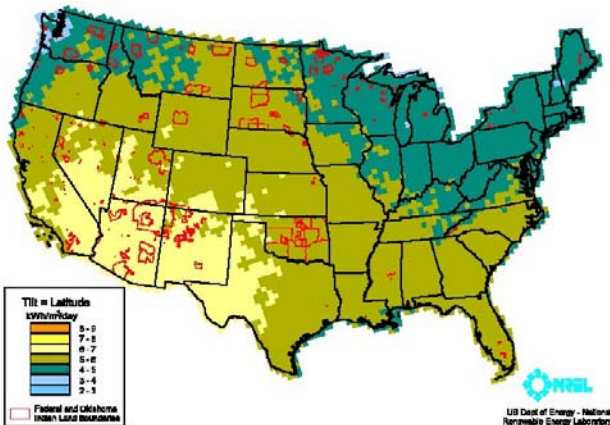
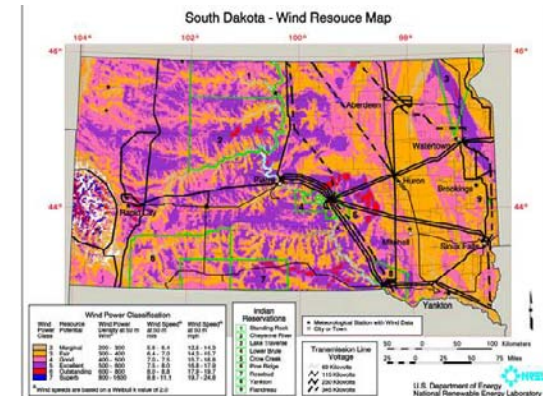


**Tribal Trust Lands
Comprises 55.7
Million Acres (Per BIA)**

DOE's Tribal Energy Program

Abundant Renewable Resources

**Wind Potential on Tribal Lands about
14% of 2004 U.S. Annual Electric
Generation or about 535 Billion kWh/yr
on Indian Lands in Lower 48 States**



**Solar Electric Potential on Tribal Lands
~4.5 times the Total U.S. Electric
Generation in 2004 or 17,600 Billion
kWh/yr on Indian Lands in Lower 48
States**



DOE's Tribal Energy Program **Three Pronged Approach**

**Financial
Assistance**

*Success through
Government-to-
Government
Partnerships*

**Technical
Assistance**

*Leveraged through
Intergovernmental
Coordination*

Information & Education

*Leveraged with Intra-
governmental
Coordination*



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DOE's Tribal Energy Program

Providing Financial Assistance

Providing financial and technical assistance to Tribes for the evaluation and development of renewable energy resources on Tribal Lands

Eligibility:

Federally-recognized Tribes or Tribal Energy Resource Development Organization (two or more entities, at least one of which is an Indian Tribe



Tribal Lands include Indian reservations; Public domain Indian allotments; Former Indian reservations in Oklahoma; Land held by under the provisions of the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.); and Lands held in fee simple or under a Federal land lease.

All Funds Awarded through a Competitive Process



DOE's Tribal Energy Program **Funding Opportunities**

Applications must be submitted electronically through Grants.gov

- To apply, you must be registered in Grants.gov
- Registration may take up to 21 days to complete
- For more, see <http://www.grants.gov/GetStarted>
- Verify you are registered by contacting the Grants.gov Helpdesk
- For assistance help, contact Grants.gov Helpdesk at 1-800-518-4726 or support@grants.gov



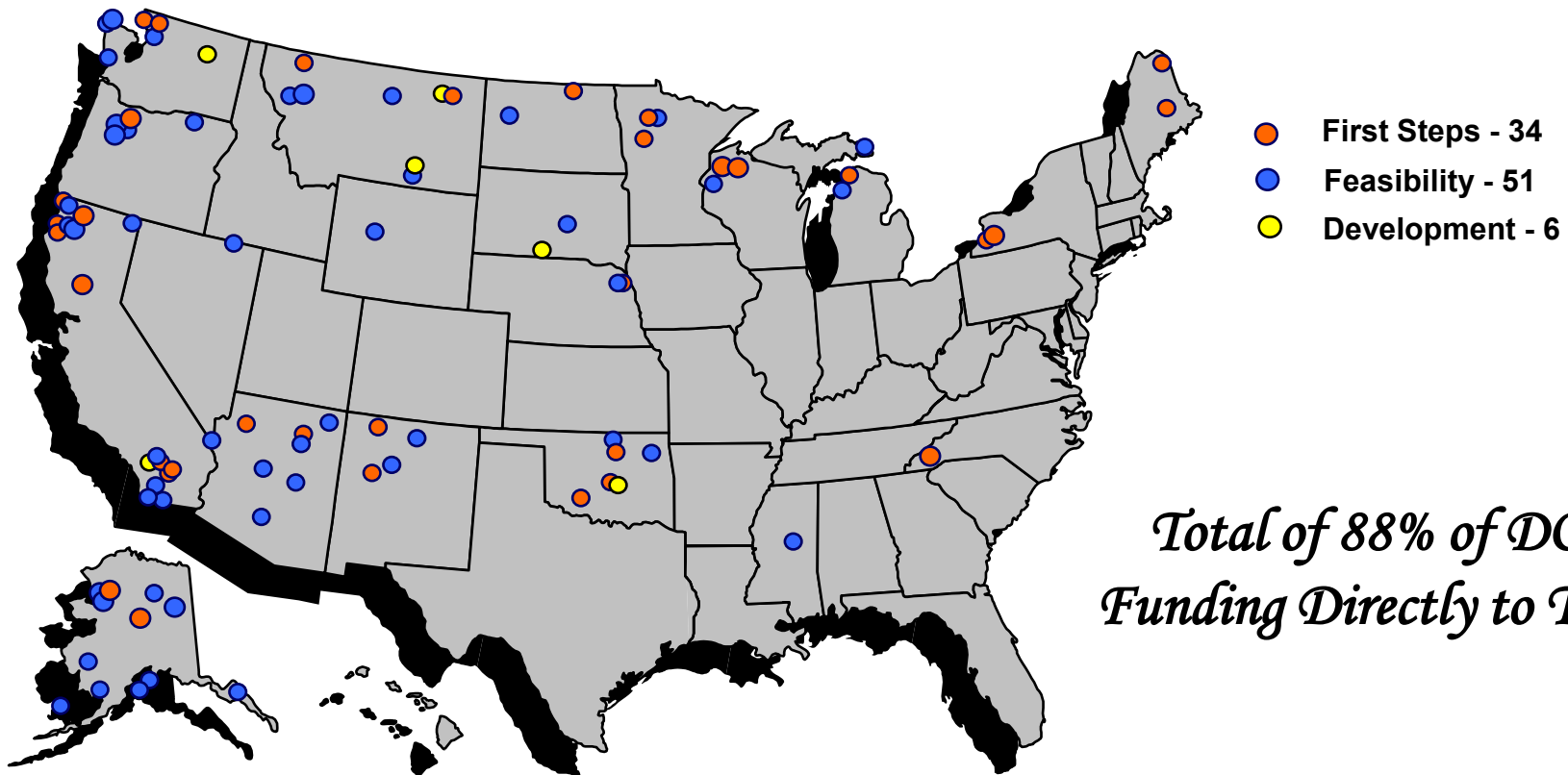
First 750 kW Turbine on
Tribal Lands in the
Contiguous U.S.



DOE's Tribal Energy Program

Success Through Partnerships

***DOE has funded 91 Tribal energy projects totaling
Over \$14 million (2002-2007)***

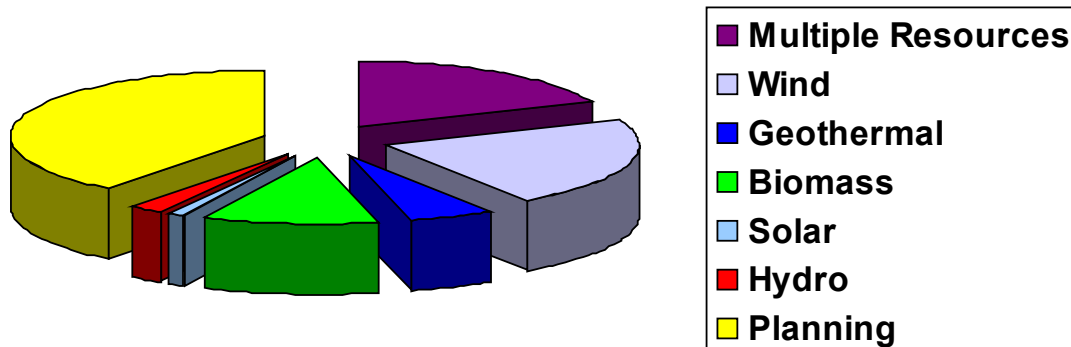


*Total of 88% of DOE
Funding Directly to Tribes*

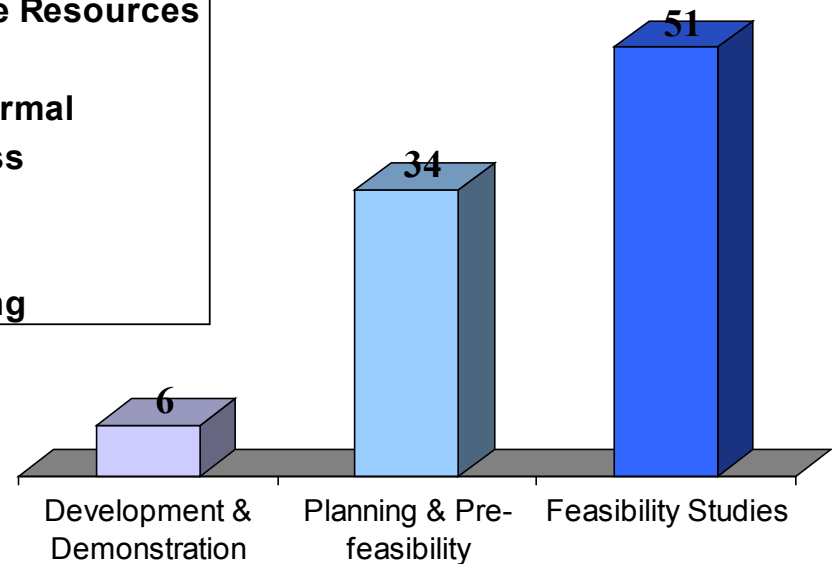


DOE's Tribal Energy Program Tribal Project Pipeline

Assisting Tribes Meet Their Energy Goals



*Tribes cost-shared \$4.1 million
(None Required)*



**Tribal energy resource development can support
local economies and Tribal sovereignty**



Samish Indian Nation
of Washington Energy
Options Study

DOE's Tribal Energy Program

Success through Government-to-Government Partnerships

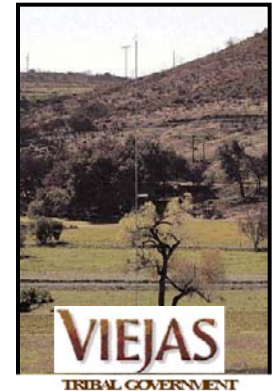
- Four demonstrations projects completed and two underway
- Thirty-five (35) tribal feasibility studies completed and reports posted
- Eight (8) feasibility projects proceeding toward development
- Twenty-two (22) tribes developed strategic energy plans and three proceeded to feasibility studies
- Over 50 anemometers measuring tribal wind resources in Indian Country

Cabazon Band of
Mission Indians



Pueblo of Jemez Geothermal
Feasibility Study

Three Affiliated Tribes
Wind Feasibility Study



Viejas Tribal Government
Tribal Utility and Wind
Study



St. Croix
Chippewa
Biomass Study





DOE's Tribal Energy Program **Three Pronged Approach**

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*Success through
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**Technical
Assistance**

*Leveraged through
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*Leveraged with Intra-
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DOE's Tribal Energy Program

Providing Technical Assistance

Technical Assistance

- Technology Advice
- Models and Tools
- Resource Maps
- Strategic Energy Planning
- Project Support
- Economic Evaluations
- Design Review
- Special Studies



National Renewable Energy Laboratory (NREL) Science & Technology Facility and Solar Energy Research Facility (SERF)



**Assisting Tribes with expertise through
DOE's National Laboratories**

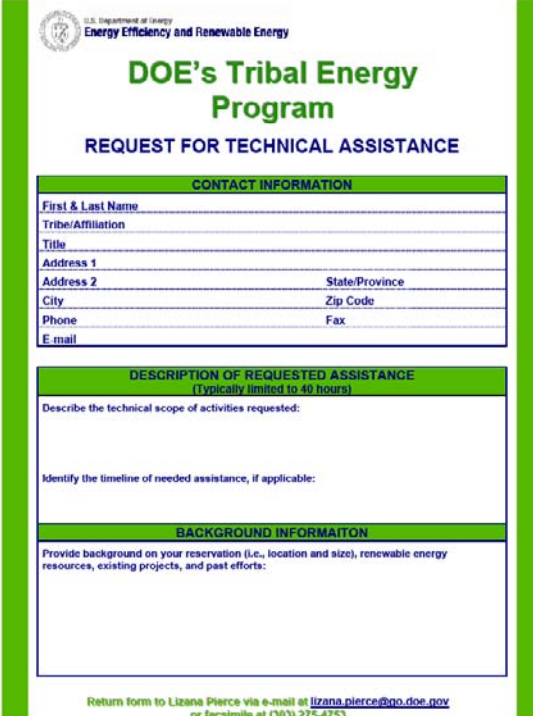




DOE's Tribal Energy Program

Technical Assistance Requests

- The application process is quick and easy: complete the request form and forward it to Lizana Pierce, TEP Project Manager, via e-mail or via facsimile at (303) 275-4753.
- The value of technical assistance is typically limited to 40 hours and may include, but is not limited to, renewable energy technology information, renewable resource information, energy efficiency techniques, project support, system performance modeling, policy information, design review, special studies, strategic energy planning, and training.



U.S. Department of Energy
Energy Efficiency and Renewable Energy

DOE's Tribal Energy Program

REQUEST FOR TECHNICAL ASSISTANCE

CONTACT INFORMATION	
First & Last Name	
Tribe/Affiliation	
Title	
Address 1	
Address 2	State/Province
City	Zip Code
Phone	Fax
E mail	

DESCRIPTION OF REQUESTED ASSISTANCE (Typically limited to 40 hours)
Describe the technical scope of activities requested:
Identify the timeline of needed assistance, if applicable:

BACKGROUND INFORMATION
Provide background on your reservation (i.e., location and size), renewable energy resources, existing projects, and past efforts:

Return form to Lizana Pierce via e-mail at lizana.pierce@eeere.energy.gov
or facsimile at (303) 275-4753

Technical Assistance Request Form at
http://www.eere.energy.gov/tribalenergy/tech_assistance.cfm



DOE's Tribal Energy Program **Three Pronged Approach**

**Financial
Assistance**

*Success through
Government-to-
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Partnerships*

**Technical
Assistance**

**Information &
Education**

*Leveraged through
Intergovernmental
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*Leveraged with Intra-
governmental
Coordination*



DOE's Tribal Energy Program

Annual Program Review

Forum for Sharing and Learning

- Forum for tribes to meet and learn from other tribes pursuing energy sufficiency through conservation or renewable energy, and share in their successes.
- Networking & learning opportunity
- Project progress presented
- Forty-Fifty (40-50) tribal energy projects represented
- Typically 120-150 participants



November 17-20, 2008 Denver, CO



DOE's Tribal Energy Program

Informational Forum

Business Development and Project Financing (October 8-11, 2007)

- Business and legal frameworks are necessary elements of developing and sustaining renewable energy projects.
- Designed to identify business structure options, financing methods, and provide an understanding of the institutional tools needed to bring projects to reality.
- Basis for business and financing tools (model contracts, decision matrix, primers)



Course to be held at the
Renaissance Denver Hotel, 3801
Quebec St, Denver, CO 80207

Workshop Materials Posted under “Short Courses” at
www.eere.energy.gov/tribalenergy



DOE's Tribal Energy Program

Regional Training

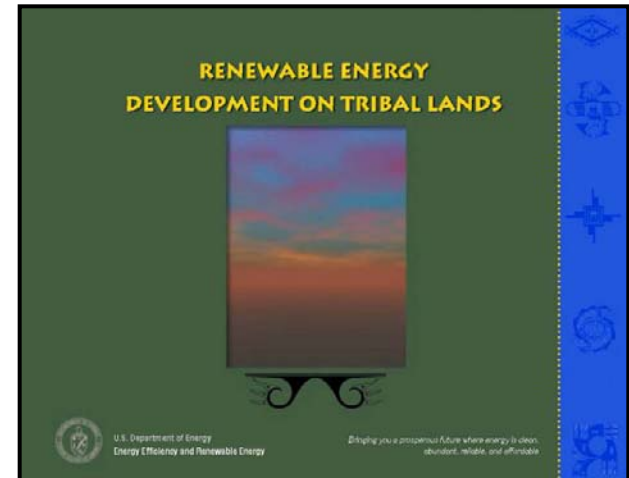
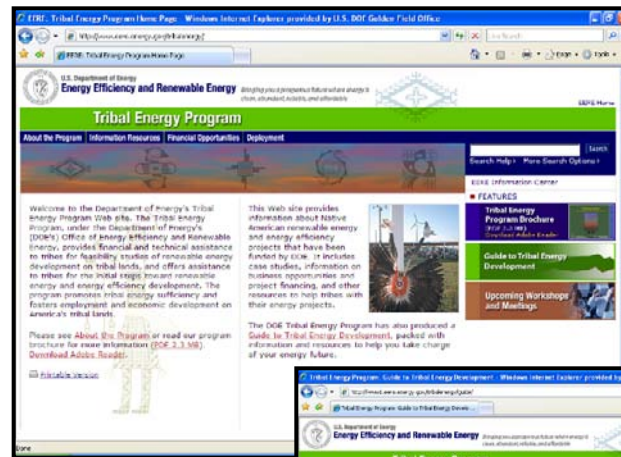
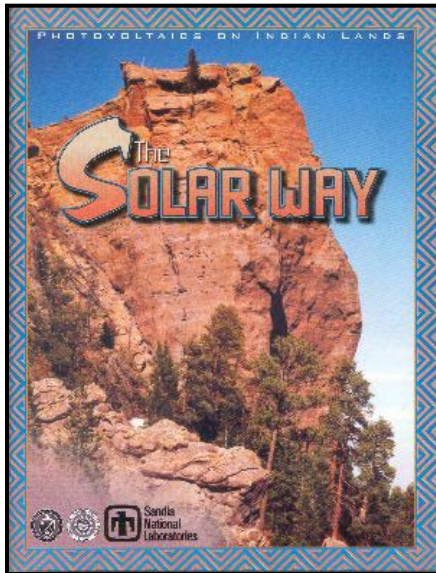
Five (5) regional Tribal Renewable Energy Development Workshops

Regional workshops to include: renewable energy technologies and energy efficiency concepts; renewable energy project development; organization and legal framework for development; and financing options.

- **California Tribes (January 14-17, 2008, Sacramento, CA,) - Completed**
- **Great Lakes Tribes (February 25-28, 2008, Minneapolis, MN) - Completed**
- **Alaska Natives (April 21-23, 2008, Anchorage, AK) - Completed**
- **Great Plains Tribes (May 12-15, 2008, 2008, Rapid City, SD) - Completed**
- **Southwest Tribes (July 21-24, 2008, Albuquerque, NM)**

DOE's Tribal Energy Program

Information Resources



Tribal Energy Website

www.eere.energy.gov/tribalenergy



Guide to Tribal Energy Development

www1.eere.energy.gov/tribalenergy/guide

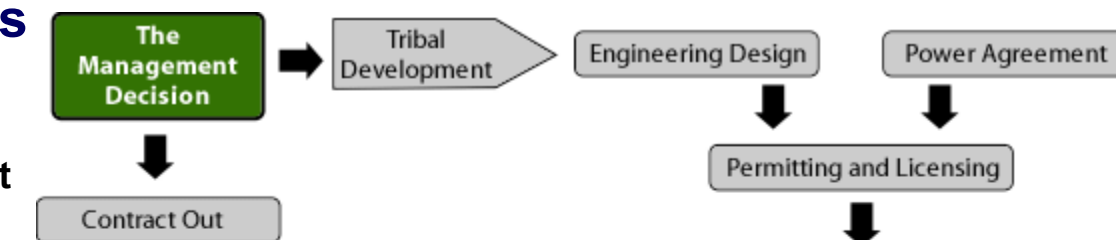


DOE's Tribal Energy Program

Guide to Tribal Energy Development

Development Processes

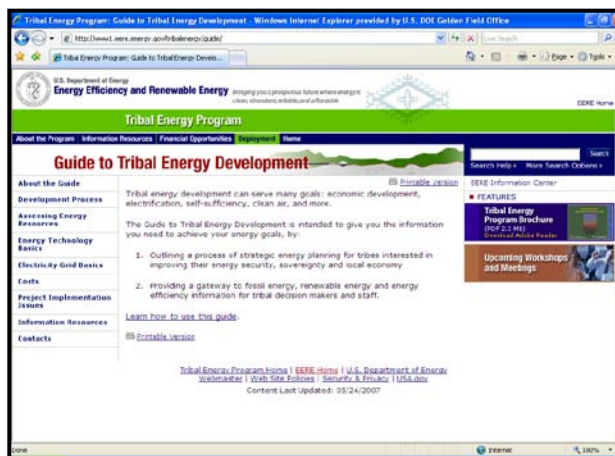
- Strategic Planning
- Options Analysis
- Organizational Development
- Project Development



Business & Financing (Under development)

Resource Library

- Energy Resources
- Technologies
- Costs
- Risk Factors
- Legal Issues
- Financing Options
- Contacts



www.eere.energy.gov/tribalenergy/guide



DOE's Tribal Energy Program

Student Internships

Requirements

- The student applicant must be a U.S. citizen and a **Native American**, defined as a member of a federally recognized tribe, Alaska Village, or Alaska Corporation (*excludes* state-recognized tribes; bands or groups; and first peoples of Guam or Hawaii). Specific interest in renewable energy is required.

Application Process

- Applications due February 23rd for 12 week internship at Sandia National Laboratories or contact Sandra Begay-Campbell at (505) 844-5418 or skbegay@sandia.gov
- Application form posted on TEP website annually

Internships (13 Interns 2002-2007)

- Three (3) summer interns sponsored in 2003 and 2004 each
- Year-round intern sponsored (2002-2004)
- One (1) summer intern and two (2) year-round interns (2005)
- Three (3) summer interns and one year-round intern sponsored (2006)
- Three (3) summer interns sponsored (2007)



Summer Interns on the Navajo Reservation (2003)

Summer Interns on a windy day (2004)



**Student Paper and Workshop Materials
Posted on TEP Website**



DOE's Tribal Energy Program

Other Resources & Information



First 750 kW Turbine on
Tribal Lands in the
Contiguous U.S.



Solar arrays on Navajo home



Solar Installations at Pueblo of Laguna's
Majors Ranch

A 6kW PV System at SIPI's
Science and Technology Building



Jicarilla Apache Reservation PV
array on Dulce High School





DOE's Tribal Energy Program

Title V of EPAAct 2005, Indian Provisions

Authorizes the creation of an “Office of Indian Energy Policy and Programs” within the Department of Energy

Department of Energy Program

- **DOE Indian Energy Education Planning and Management Assistance Program (Authorization for \$20 Million for each fiscal year 2006-2016)**
- **DOE Loan Guarantee Program (Aggregate amount guaranteed not to exceed \$2 Billion)**

Department of Interior Program

- **Indian Tribal Energy Resource Development Program (Authorized such sums as are necessary in fiscal years 2006 through 2016)**
- **Indian Tribal Energy Resource Regulation (Grants for energy inventories and feasibility studies)**

No Funds Appropriated for EPAAct 2005



DOE's Tribal Energy Program

Energy Independence & Security Act (2007)

Energy Efficiency and Conservation Block Grants (Subtitle E)

Establish a program to provide grants for:

- **Reduce Fossil Fuel Emissions**
- **Reduce the Total Energy Use**
- **Improve Energy Efficiency**

Allocated as follows to eligible entities:

- **68% to eligible units of local government**
- **28% to States**
- **2% to Indian Tribes**
- **Remaining 2% for competitive grants to non-eligible entities**

Formula:

- **Indian Tribes--Of amounts available for distribution to Indian Tribes under subsection (a)(3), the Secretary shall establish a formula for allocations to Indian Tribes, taking into account any factors that the Secretary determines appropriate.**

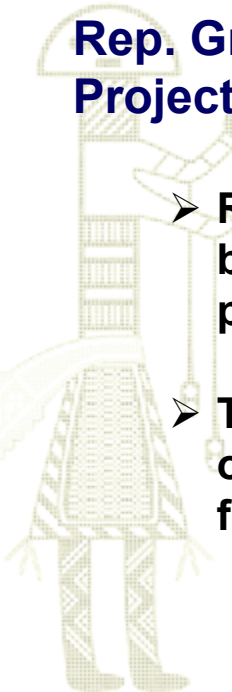
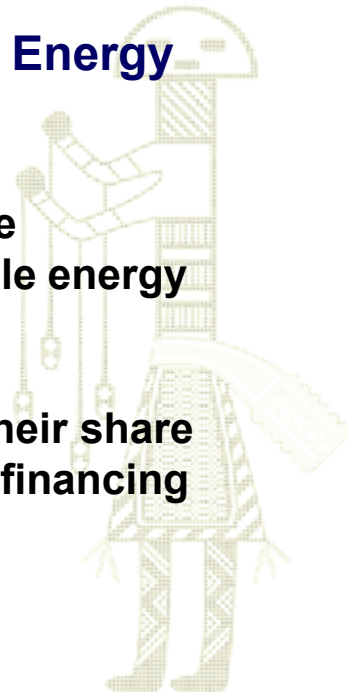
**\$2 Billion Authorized Each Year (FY2008 –
FY2012) House FY2009 Marks at \$295 Million**



DOE's Tribal Energy Program

Pending Legislation

Rep. Grijalva (Arizona) Introduces Bill to Facilitate Renewable Energy Projects on Tribal Lands (HR1954)

- 
- 
- Rep. Raúl M. Grijalva introduced legislation that will encourage businesses to partner with Native American tribes on renewable energy projects on tribal lands.
 - The bill would allow tribes, which are tax-exempt, to transfer their share of the production tax credit (PTC) to private entities providing financing for joint venture renewable energy projects on tribal lands.

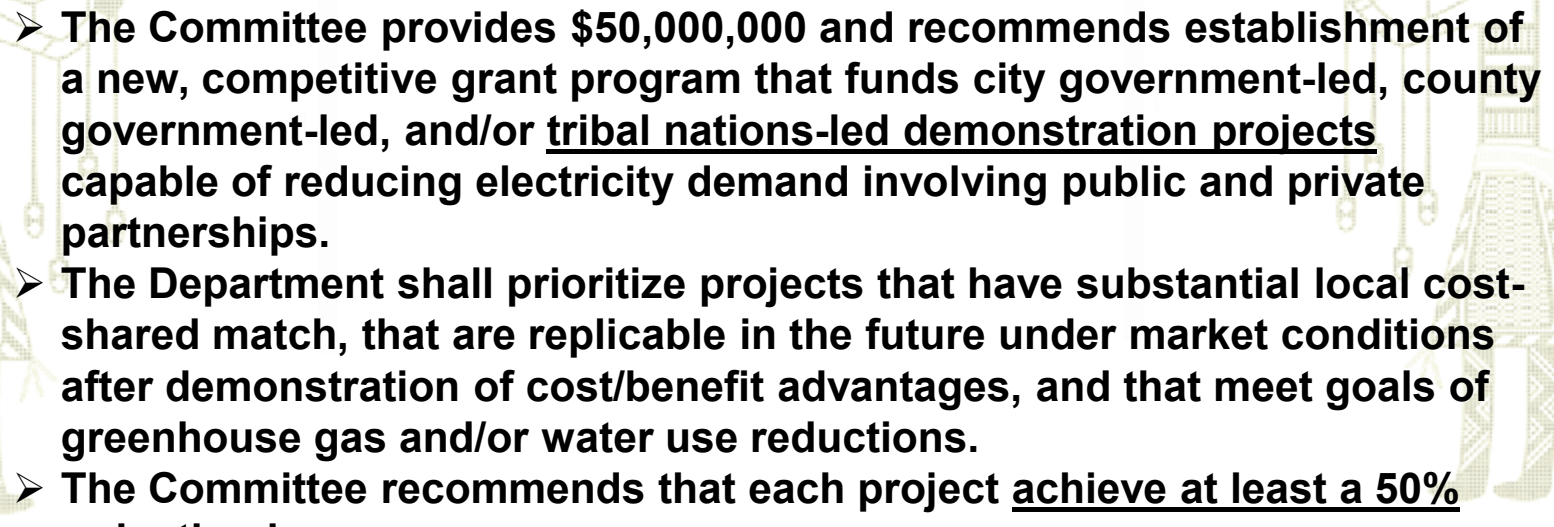
Transfer of Production Tax Credits allows Tribal Projects to be Competitive



DOE's Tribal Energy Program

Pending Appropriations


Local Government and Tribal Technology Demonstrations (Senate Committee Report)

- 
- The Committee provides \$50,000,000 and recommends establishment of a new, competitive grant program that funds city government-led, county government-led, and/or tribal nations-led demonstration projects capable of reducing electricity demand involving public and private partnerships.
 - The Department shall prioritize projects that have substantial local cost-shared match, that are replicable in the future under market conditions after demonstration of cost/benefit advantages, and that meet goals of greenhouse gas and/or water use reductions.
 - The Committee recommends that each project achieve at least a 50% reduction in energy usage.
 - The Committee recommends each grant not exceed \$5,000,000 per project and the total Federal share for each project be capped at 50 percent.



DOE's Tribal Energy Program

Information Resources

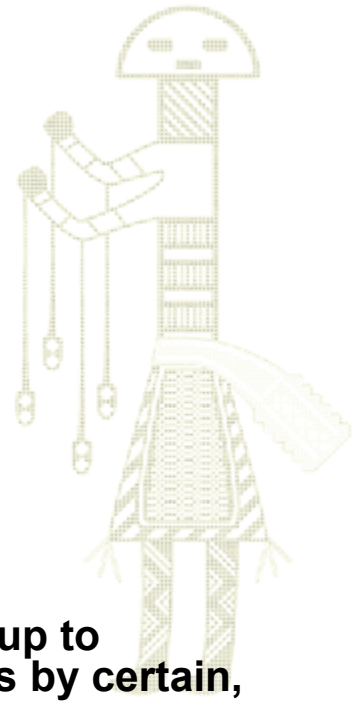
- **Federal Grants**
 - One-stop for Federal grant opportunities, see www.grants.gov
 - Forwarded monthly through TEP Tribal Email list
 - **Tribal Grants (Tribal Energy Program website)**
 - See www.eere.energy.gov/tribalenergy/government_grants.cfm
Identifies grants through the Tribal Energy Program, Other DOE opportunities, and Federal funding, and provides links to funding through DOI, USDA, DOC, EPA, and HUD
 - Other opportunities forwarded through TEP Tribal Email List
 - **Database of State Incentives for Renewables and Efficiency**
 - DSIRE at www.dsireusa.org/
 - **Tax Incentives Assistance Project**
 - TAIP at www.energytaxincentives.org/
- 



DOE's Tribal Energy Program

Funding Resources

- **Loan Guarantees**
 - **Bureau of Indian Affairs (Contact Jerry Ryburn, SW Region)**
 - **USDA Rural Development (Contact State Tribal Liaison at http://www.rurdev.usda.gov/recd_map.html)**
- **USDA Rural Development Grants**
 - **Rural Business Enterprise Grants (RBEG)**
<http://www.rurdev.usda.gov/rbs/busp/rbeg.htm>
 - **Rural Business Opportunity Grants (RBOG)**
<http://www.rurdev.usda.gov/rbs/busp/rbog.htm>
- **Clean Renewable Energy Bonds (CREBs)**
 - **The Energy Tax Incentive Act of 2005 an Energy Bill authorized up to \$800,000,000 in tax credit bonds to be issued for certain projects by certain, qualified issuers. See <http://www.crebs.org/>**





DOE's Tribal Energy Program

Funding Resources

- Renewable Energy Certificates (RECs), also known as Green tags, Renewable Energy Credits, or Tradable Renewable Certificates (TRCs)
 - Tradable environmental commodities in the United States which represent 1 MWh of electricity generated from an eligible renewable energy resource.
 - See <http://www.eere.energy.gov/greenpower/markets/certificates.shtml?page=0>
- White Certificates
 - White certificates are documents certifying that a certain reduction of energy consumption has been attained. In most applications, the white certificates are tradable and combined with an obligation to achieve a certain target of energy savings. To date, three states – Connecticut, Nevada and Pennsylvania - have adopted legislation requiring energy efficiency credits as part of a mandated portfolio standard.



DOE's Tribal Energy Program

Funding Resources

US Treasury Awards \$8.2 Million to Organizations Serving Economically Distressed Native American Communities

(News Release June 19, 2008)

“U.S. Department of the Treasury's Community Development Financial Institutions (CDFI) Fund visited Scottsdale, Arizona today to announce awards totaling \$8,224,587 to 29 organizations serving Native American or Alaskan Native communities located in 15 states. The awards were made through the CDFI Fund's Native American CDFI Assistance (NACA) Program.”

- **New Market Tax Credits**

- **Created by Congress to permit taxpayers to receive a tax credit against federal income taxes for making equity investments in Community Development Entities. Substantially all the qualified equity investments must in turn be used by the Community Development Entities in low-income communities.**
- **The Community Development Financial Institutions Fund ("CDFI Fund") under the U.S. Department of Treasury administers the program.**
- **See <http://www.cdfifund.gov/>**
- **For Native American Initiatives, see [http://www.cdfifund.gov/what we do/programs id.asp?programID=3](http://www.cdfifund.gov/what%20we%20do/programs%20id.asp?programID=3)**

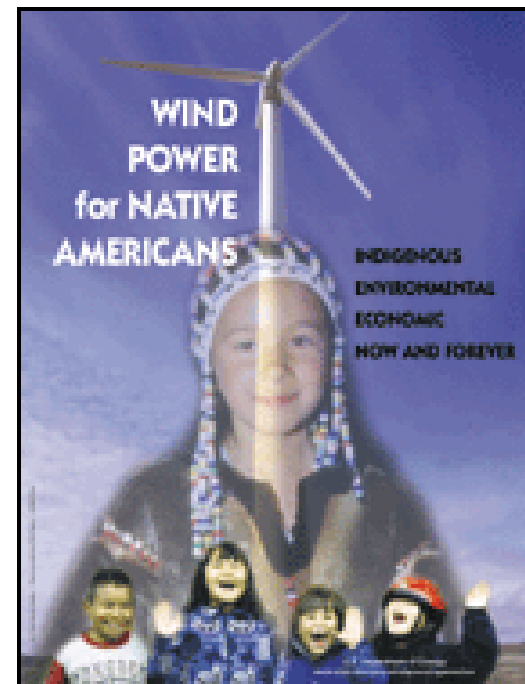


Wind Powering America's (WPA) Native American Program

WPA recognizes the vast wind resources on tribal lands and provides technical assistance to:

- Evaluate the resource; and
- Pursue development options that best match Native interests

**Wind Powering Native America Video
Anemometer Loan Program
Native American Wind Interest Group
(NAWIG) Quarterly Newsletter**

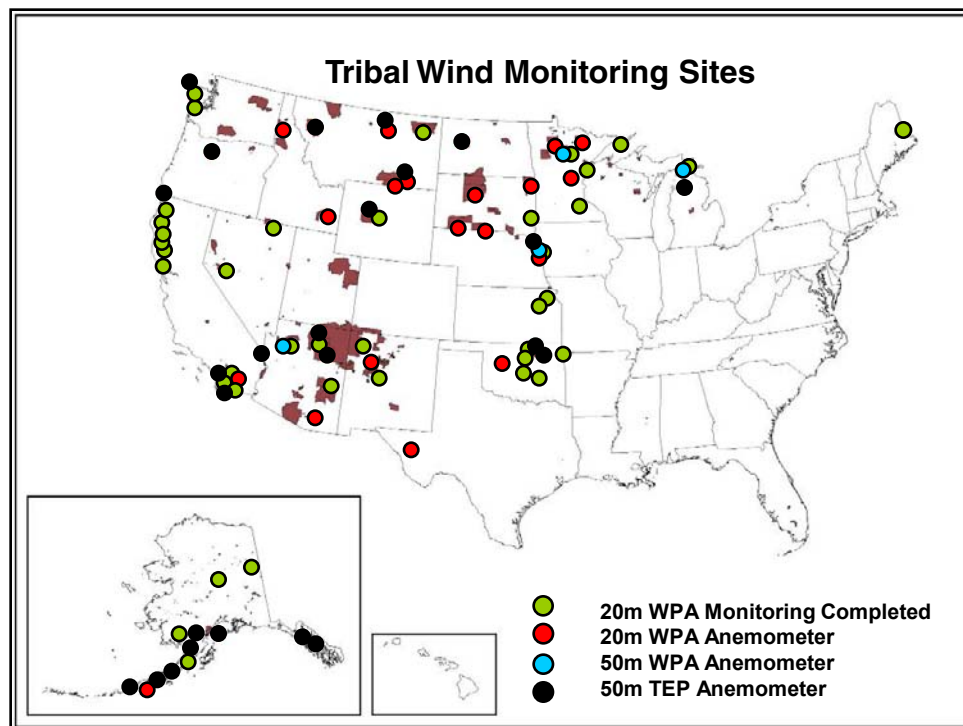




DOE's Tribal Energy Program

Native American Anemometer Loan Program

- **Managed through the National Renewable Energy Laboratory**
- **20 meter and 50 meter anemometers for loan to Tribes**
- **Native American Anemometer Loan Program has supported over 70 tribes**
- **Simple application process**
- **Contact: Tony Jimenez
(303) 384-7027
tony_jimenez@nrel.gov**



**For more or to apply, see “Native American” at
www.eere.energy.gov/windandhydro/windpoweringamerica**



DOE's Geothermal Program

Tribal Projects Competitively Awarded Funding



- Partially Funded 400kW Chena Hot Springs Geothermal Power Plant
- Fort Bidwell Indian Community Selected for Geothermal Resource Exploration and Definition



Chena Hot Springs

www.eere.energy.gov/geothermal



DOE's GeoPowering the West

GeoPowering the West is a commitment to dramatically increase the use of geothermal energy in the western United States



Jemez Pueblo received DOE support to study its geothermal resource

- Provides information and technical assistance to tribes
 - Partners with tribes to expand the use of geothermal energy
- Site visits completed at Pyramid Lake Paiute, Walker River Paiute and Wind River Tribe
 - Geothermal greenhouse tours provided to several New Mexico pueblo officials



**GEOPOWERING
THE WEST**

www.eere.energy.gov/geothermal



DOE's Tribal Energy Program

Contact Information

Lizana Pierce, Project Manager

Department of Energy

Golden Field Office

Telephone: (303) 275-4727

Fax: (303) 275-4753

Email: lizana.pierce@go.doe.gov

Victoria DeHerrera, Project Analyst

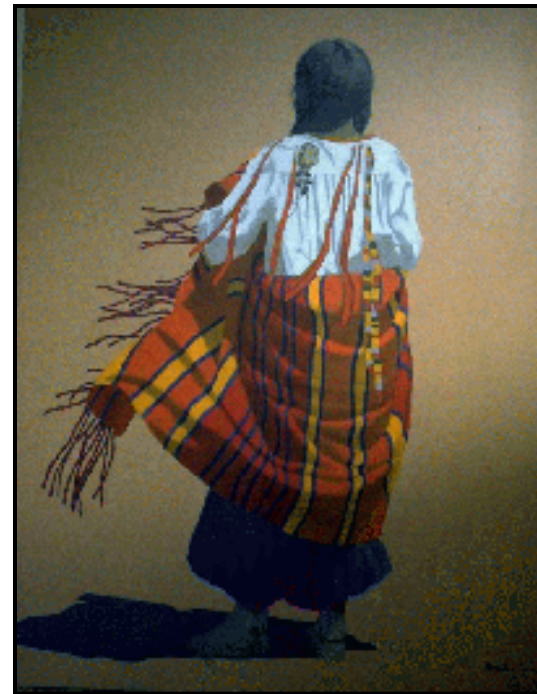
Navarro Research & Engineering

Golden Field Office

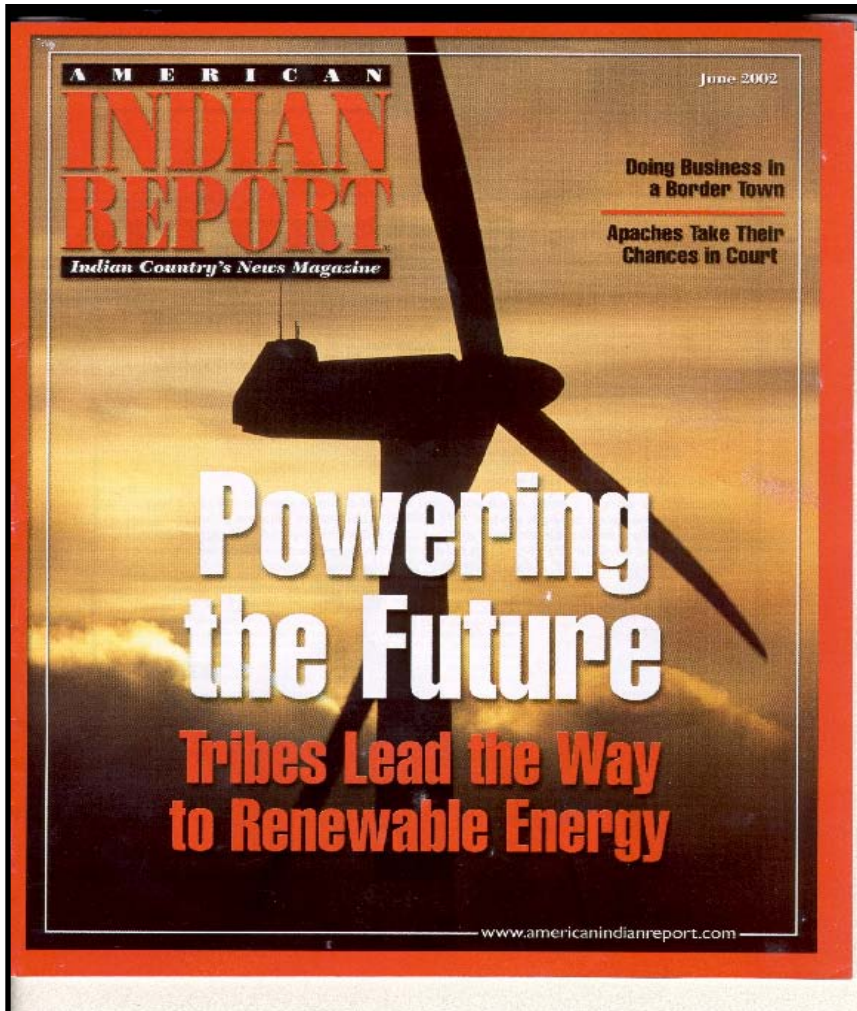
Telephone: (303) 275-4909

Fax: (303) 275-4753

Email: victoria.deherrera@go.doe.gov



To receive periodic information on funding opportunities, upcoming workshops and training, and other tribal energy information, join our email list by contacting me at lizana.pierce@go.doe.gov



QUESTIONS

**“Tribes Leading the Way
to Renewable Energy”**

**American Indian Report
June 2002**